

FCC Radio Test Report

FCC ID: 2ARWL-GB101

Report No. : TB-FCC162879
Applicant : ShenZhen Erui Smart Home CO.,Ltd.
Equipment Under Test (EUT)
EUT Name : 2.4G Digital Baby monitor
Model No. : GB101
Serial Model No. : N/A
Brand Name : WLSES
Receipt Date : 2018-11-15
Test Date : 2018-11-16 to 2018-11-25
Issue Date : 2018-11-27
Standards : FCC Part 15, Subpart C (15.249)
Test Method : ANSI C63.10: 2013
Conclusions : **PASS**

In the configuration tested, the EUT complied with the standards specified above,
The EUT technically complies with the FCC requirements

Test/Witness Engineer : *Jason Xu*
Jason Xu

Engineer Supervisor : *Ivan Su*
Ivan Su

Engineer Manager : *Ray Lai*
Ray Lai

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

Contents

CONTENTS.....	2
1. GENERAL INFORMATION ABOUT EUT	4
1.1 Client Information.....	4
1.2 General Description of EUT (Equipment Under Test)	4
1.3 Block Diagram Showing the Configuration of System Tested.....	5
1.4 Description of Support Units	5
1.5 Description of Test Mode.....	6
1.6 Description of Test Software Setting	6
1.7 Measurement Uncertainty	7
1.8 Test Facility.....	7
2. TEST SUMMARY.....	8
3. TEST EQUIPMENT.....	9
4. CONDUCTED EMISSION TEST	10
4.1 Test Standard and Limit.....	10
4.2 Test Setup.....	10
4.3 Test Procedure.....	10
4.4 EUT Operating Mode	11
4.5 Test Data.....	11
5. RADIATED EMISSION TEST	12
5.1 Test Standard and Limit.....	12
5.2 Test Setup.....	13
5.3 Test Procedure.....	14
5.4 EUT Operating Condition	15
5.5 Test Data.....	15
6. BANDWIDTH TEST.....	16
6.1 Test Setup.....	16
6.2 Test Procedure.....	16
6.3 EUT Operating Condition	16
6.4 Test Data.....	16
7. ANTENNA REQUIREMENT.....	17
7.1 Standard Requirement.....	17
7.2 Antenna Connected Construction	17
7.3 Result.....	17
ATTACHMENT A-- CONDUCTED EMISSION TEST DATA	18
ATTACHMENT B-- RADIATED EMISSION AND RESTRICTED BANDS REQUIREMENT TEST DATA	20
ATTACHMENT C--BANDWIDTH TEST DATA	29

Revision History

Report No.	Version	Description	Issued Date
TB-FCC162879	Rev.01	Initial issue of report	2018-11-27

1. General Information about EUT

1.1 Client Information

Applicant	:	ShenZhen Erui Smart Home CO.,Ltd.
Address	:	B 1037-1038,Qing Hu science and Technology Park, Longhua District, Shenzhen, China
Manufacturer	:	ShenZhen Erui Smart Home CO.,Ltd.
Address	:	B 1037-1038,Qing Hu science and Technology Park, Longhua District, Shenzhen, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	2.4G Digital Baby monitor	
Product Description	:	Operation Frequency: 2408MHz-2475MHz	
		Number of Channel:	17 Channels see note (3)
		Out Power:	107.12dBuV/m@3m Peak 87.50dBuV/m@3m Avg
		Antenna Gain:	2 dBi PCB Antenna
		Modulation Type:	GFSK
		Data Rate:	1Mbps
Power Rating	:	DC 3.7V by 800mAh Li-ion Battery.	
Software Version	:	N/A	
Hardware Version	:	N/A	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note:

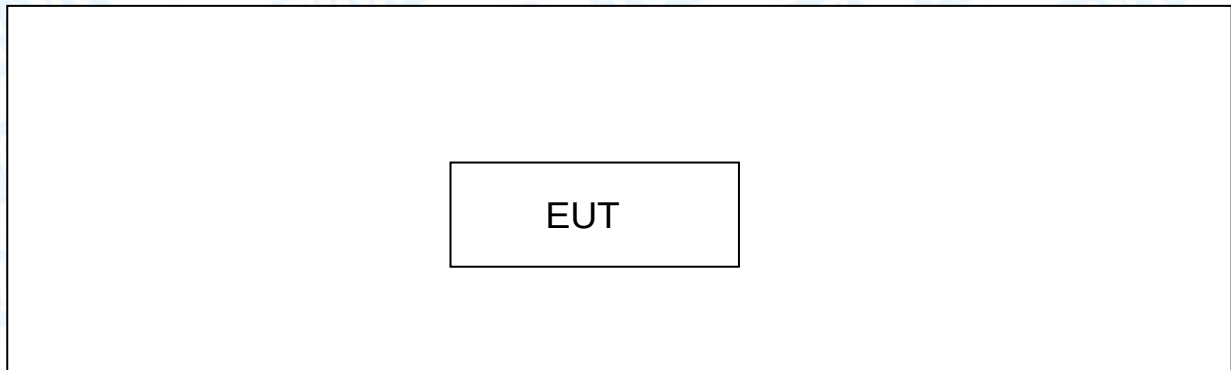
(1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

(2) Channel List:

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2408	07	2433.125	13	2458.25
02	2412.1875	08	2437.3125	14	2462.4375
03	2416.375	09	2441.000	15	2466.625
04	2420.5625	10	2445.6875	16	2470.8125
05	2424.75	11	2449.875	17	2475
06	2428.9375	12	2454.0625		

1.3 Block Diagram Showing the Configuration of System Tested

TX Mode



1.4 Description of Support Units

The EUT has been test as independent unit.

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test	
Final Test Mode	Description
Mode 1	Working Mode
For Radiated Test	
Final Test Mode	Description
Mode 2	TX Mode(2408MHz/2441MHz/2475MHz)

Note:

For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

- (1)According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels.
- (2)During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel & Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF mode.

Test Software Version	N/A
Frequency	2408MHz/2441MHz/2475MHz
FSK	DEF

1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz	± 3.42 dB
	150kHz to 30MHz	± 3.42 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.40 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB

1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.

FCC Accredited Test Site Number: 854351.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.

2. Test Summary

FCC Part 15 Subpart C(15.249)			
Standard Section	Test Item	Judgment	Remark
15.203	Antenna Requirement	PASS	N/A
15.205	Restricted Bands	PASS	N/A
15.207	AC Power Conducted Emission	PASS	N/A
15.249 &15.209	Radiated Spurious Emission	PASS	N/A
15.215(C)	20dB Bandwidth	PASS	N/A
Note: N/A is an abbreviation for Not Applicable.			

3. Test Equipment

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul.18, 2018	Jul. 17, 2019
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul.18, 2018	Jul. 17, 2019
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul.18, 2018	Jul. 17, 2019
LISN	Rohde & Schwarz	ENV216	101131	Jul.18, 2018	Jul. 17, 2019
Radiation Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul.18, 2018	Jul. 17, 2019
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul.18, 2018	Jul. 17, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.16, 2018	Mar. 15, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.16, 2018	Mar. 15, 2019
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 15, 2018	Jul. 14, 2019
Pre-amplifier	Sonoma	310N	185903	Mar.16, 2018	Mar. 15, 2019
Pre-amplifier	HP	8449B	3008A00849	Mar.16, 2018	Mar. 15, 2019
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.16, 2018	Mar. 15, 2019
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul.18, 2018	Jul. 17, 2019
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul.18, 2018	Jul. 17, 2019
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 15, 2018	Sep. 14, 2019
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 15, 2018	Sep. 14, 2019
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 15, 2018	Sep. 14, 2019
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 15, 2018	Sep. 14, 2019
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 15, 2018	Sep. 14, 2019
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 15, 2018	Sep. 14, 2019
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 15, 2018	Sep. 14, 2019

4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1 Test Standard

FCC Part 15.207

4.1.2 Test Limit

Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

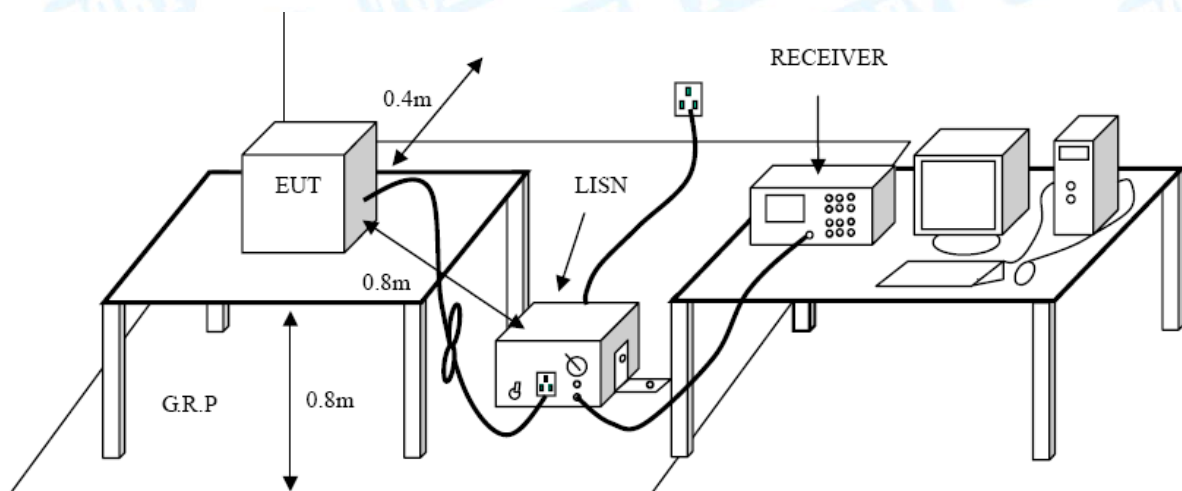
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN is at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Data

Please refer to the Attachment A.

5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.209

5.1.2 Test Limit

Radiated Emission Limit (9kHz~1000MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Distance Meters (at 3m)	
	Peak	Average
Above 1000	74	54

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(Uv/m)

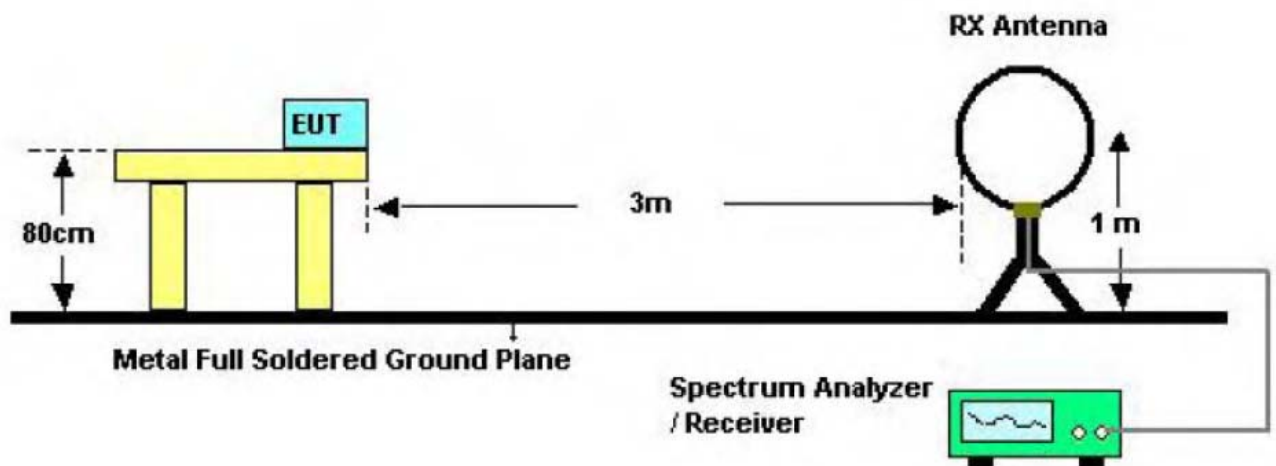
Limits of radiated emission measurement (15.249)

FCC Part 15 (15.249), Subpart C	
Limit	Frequency Range (MHz)
Field strength of fundamental 50000 μ V/m (94 dB μ V/m) @ 3 m	2400~2483.5
Field strength of fundamental 500 μ V/m (94 dB μ V/m) @ 3 m	Above 2483.5

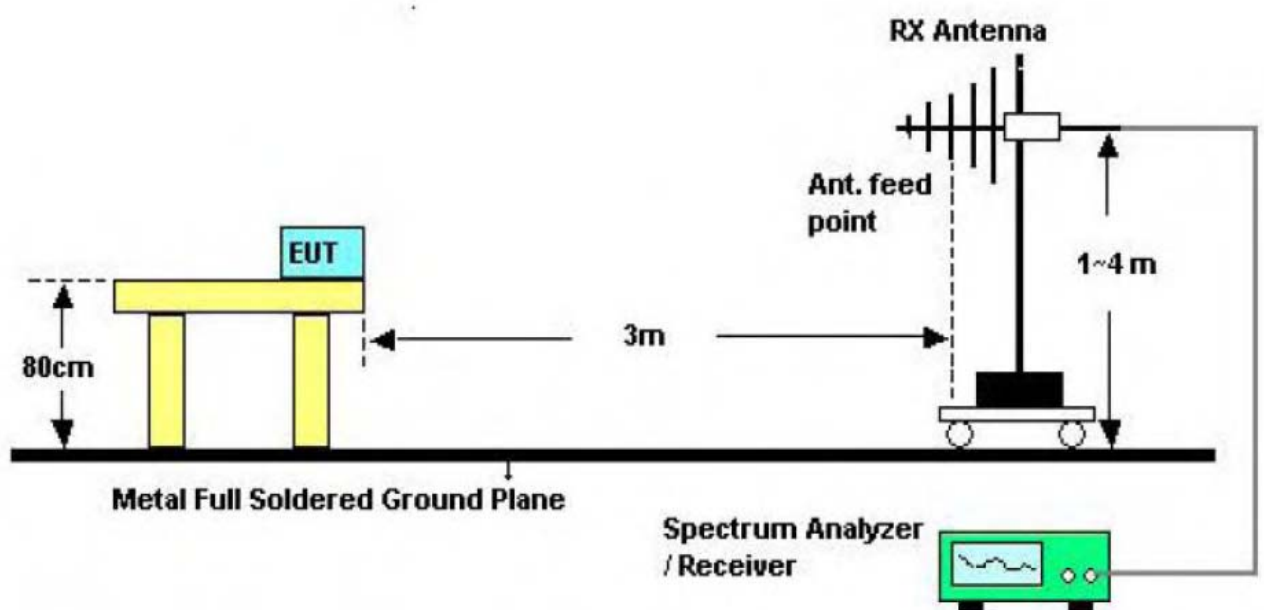
Restricted bands requirement for equipment operating in 2400MHz to 2483.5 MHz (15.249)

Restricted Frequency Band (MHz)	(dBuV/m)(at 3 M)
2310~2390	Attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in 15.209, whichever is the lesser attenuation
2483.5~2500	

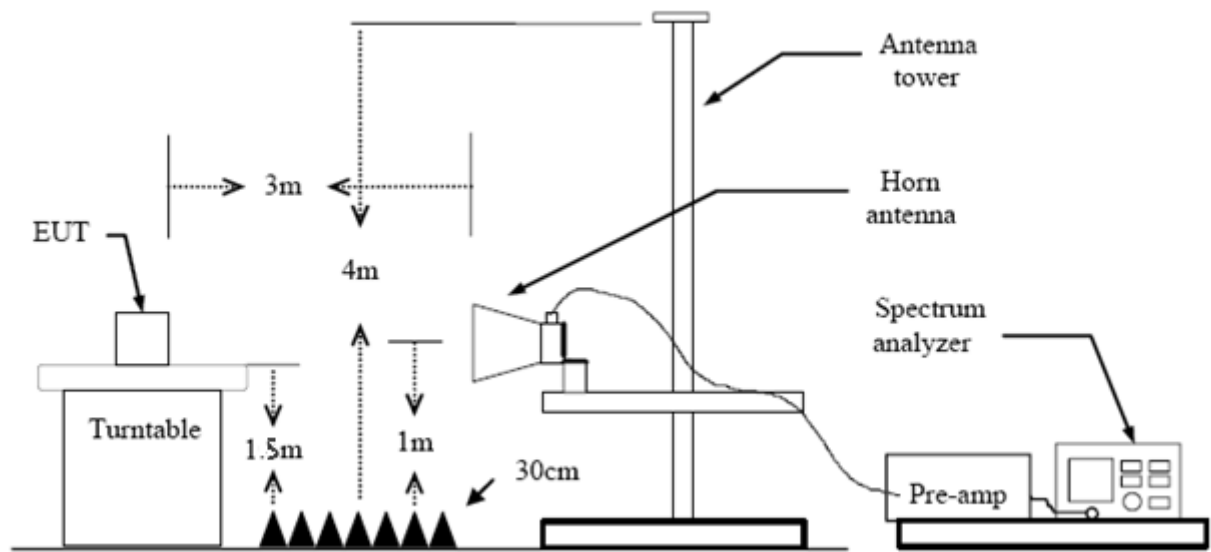
5.2 Test Setup



Below 30MHz Test Setup



Bellow 1000MHz Test Setup



Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency Below 1GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

5.4 EUT Operating Condition

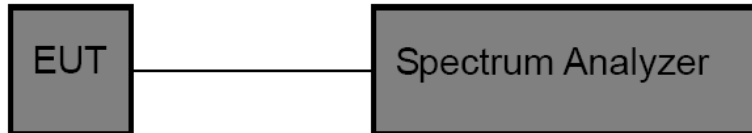
The EUT was set to Continual Transmitting in maximum power, and new batteries are used during testing.

5.5 Test Data

Please refer to the Attachment B.

6. Bandwidth Test

6.1 Test Setup



6.2 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:
Bandwidth: RBW=100 kHz, VBW=300kHz.
- (3) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.

6.3 EUT Operating Condition

The EUT was set to continuously transmitting for the Bandwidth Test.

6.4 Test Data

Please refer to the Attachment C.

7. Antenna Requirement

7.1 Standard Requirement

7.1.1 Standard

FCC Part 15.203

7.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

7.2 Antenna Connected Construction

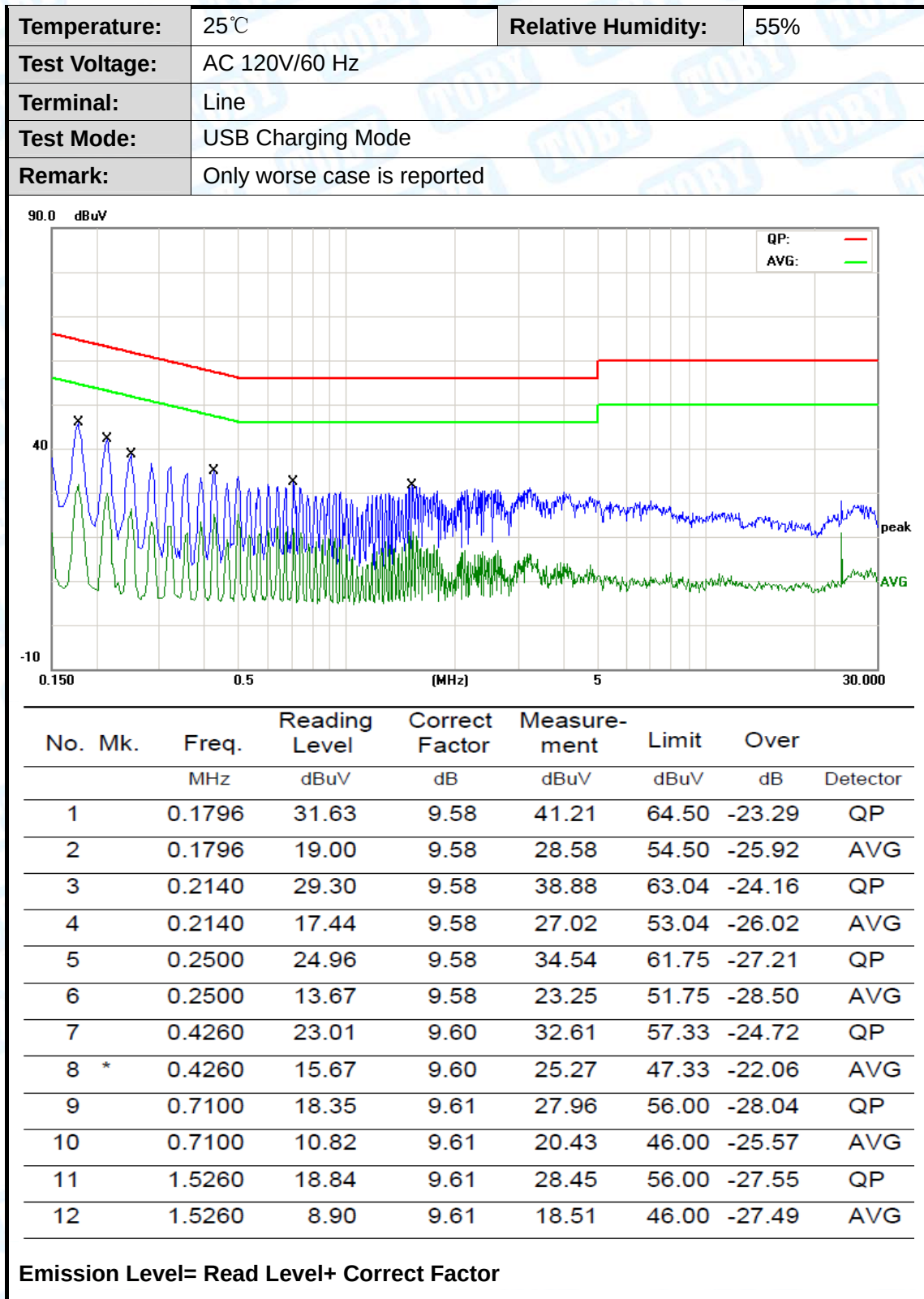
The gains of the antenna used for transmitting is 2dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

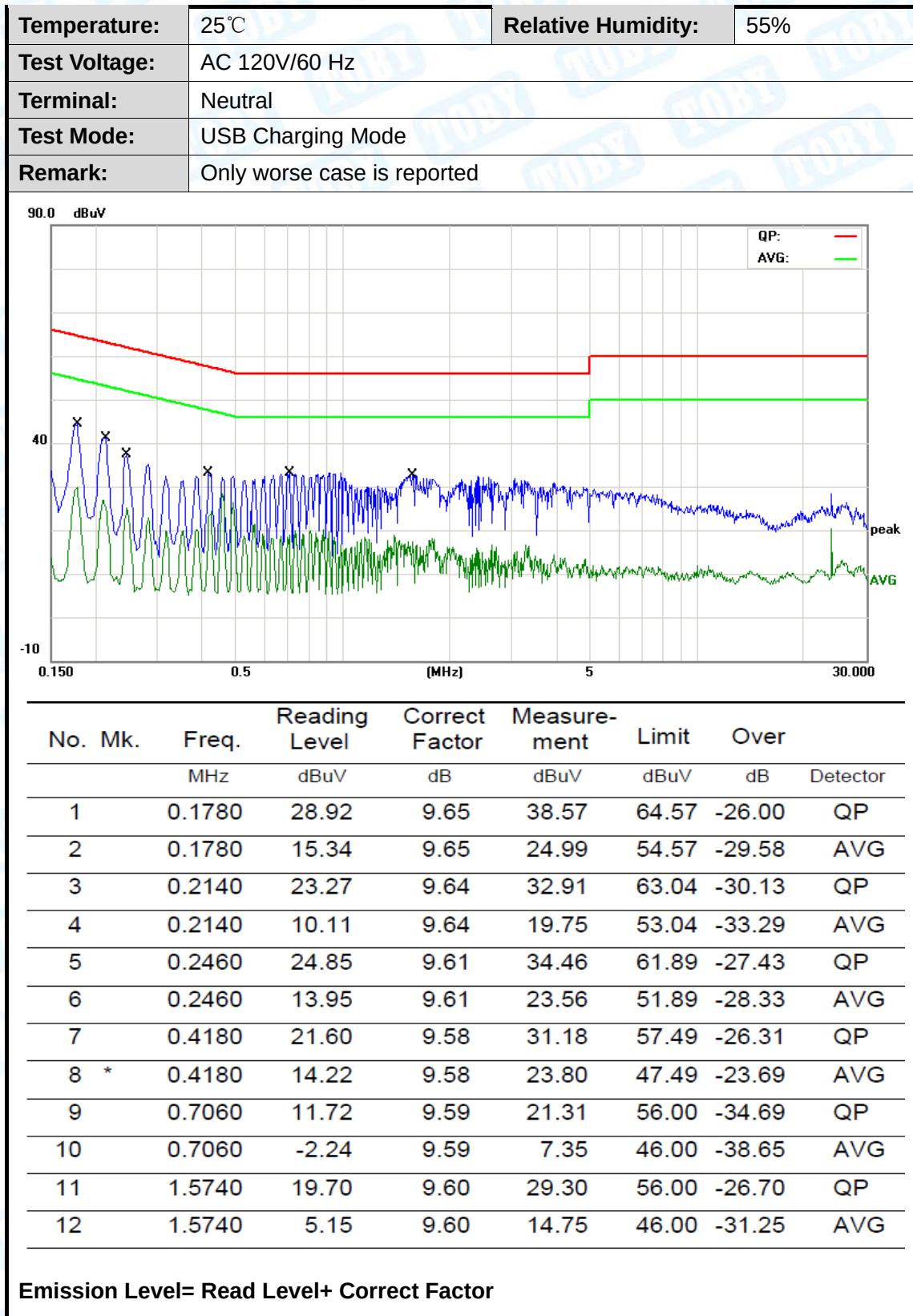
7.3 Result

The EUT antenna is a PCB Antenna. It complies with the standard requirement.

Antenna Type
☒ Permanent attached antenna
☐ Unique connector antenna
☐ Professional installation antenna

Attachment A-- Conducted Emission Test Data





Attachment B-- Radiated Emission and Restricted Bands Requirement Test Data

Field Strength of the Fundamental and Restricted Bands Requirement Test Data

Above 1GHz

Low channel: 2408 MHz										
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)				
2390	H	55.32	34.33	2.82	58.14	37.15	74	54	-15.86	-16.85
2408	H	100.31	81.03	2.92	103.23	83.94	114	94	-10.77	-10.06
---	H	---	---	---	---	---	---	---	---	---
2390	V	59.59	35.74	2.82	62.41	38.56	74	54	-11.59	-15.44
2408	V	102.69	82.77	2.92	105.61	85.69	114	94	-8.39	-8.31
---	V	---	---	---	---	---	---	---	---	---

Middle channel: 2441 MHz										
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)				
2441	H	101.26	81.37	3.01	104.27	84.38	114	94	-9.73	-9.62
---	H	---	---	---	---	---	---	---	---	---
---	H	---	---	---	---	---	---	---	---	---
2441	V	102.51	83.21	3.01	105.52	86.22	114	94	-8.48	-7.78
---	V	---	---	---	---	---	---	---	---	---
---	V	---	---	---	---	---	---	---	---	---

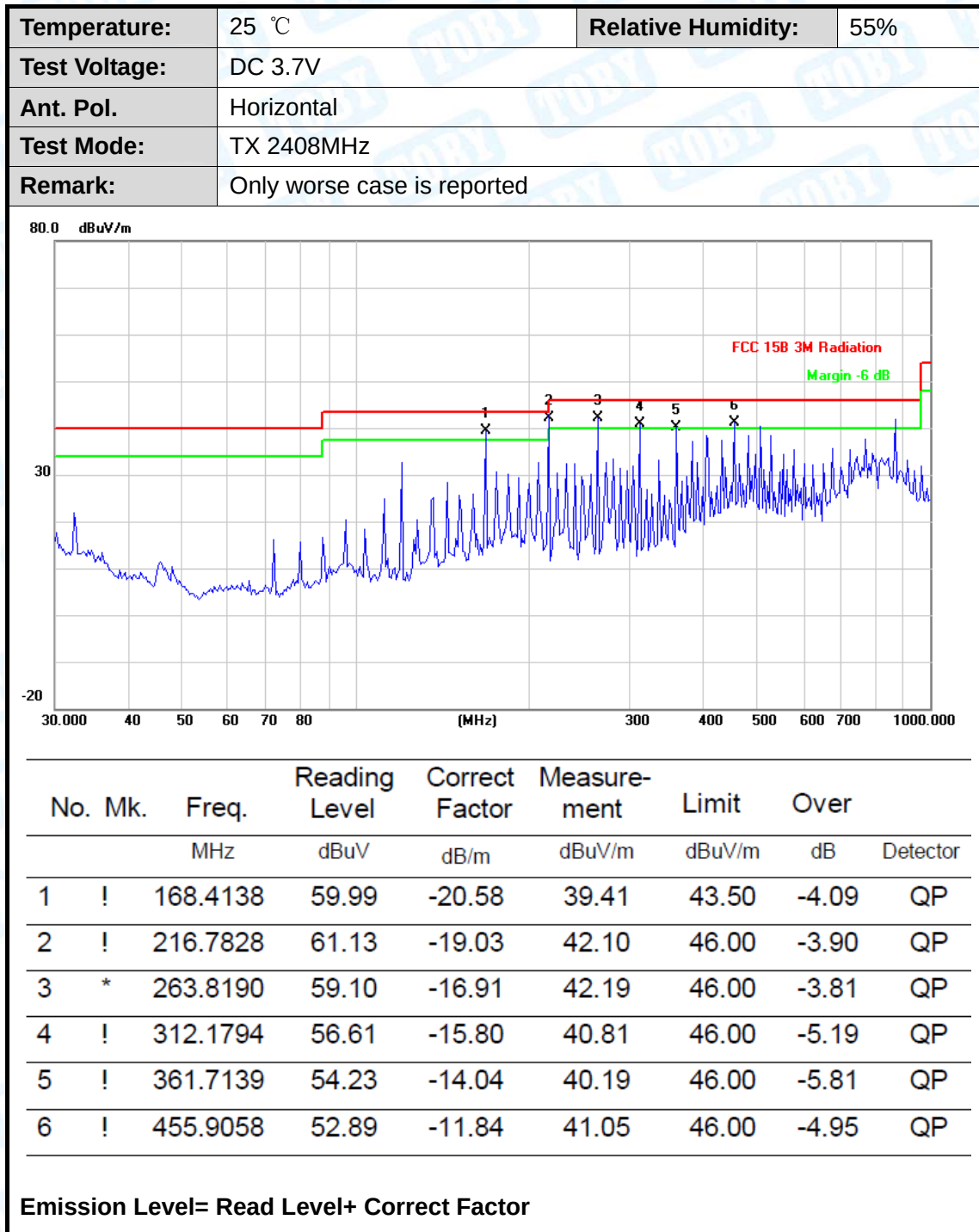
High channel: 2475 MHz										
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)				
2483.5	H	55.21	37.24	3.41	58.62	40.65	74	54	-15.38	-13.35
2475	H	97.68	77.72	3.36	101.04	81.08	114	94	-12.96	-12.92
---	H	---	---	---	---	---	---	---	---	---
2483.5	H	64.94	41.64	3.41	68.35	45.05	74	54	-5.65	-8.95
2475	V	103.76	84.14	3.36	107.12	87.50	114	94	-6.88	-6.50
---	V	---	---	---	---	---	---	---	---	---

Radiated Spurious Emission (9 KHz~30 MHz)

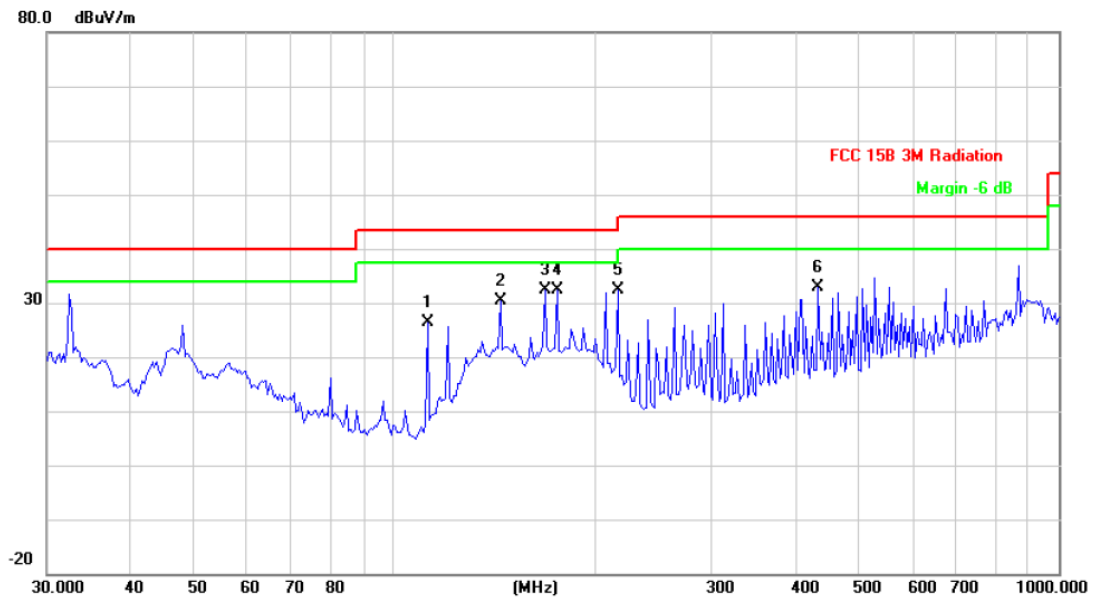
From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Radiated Spurious Emission (Below 1 GHz)



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7 V		
Ant. Pol.	Vertical		
Test Mode:	TX 2408MHz		
Remark:	Only worse case is reported		

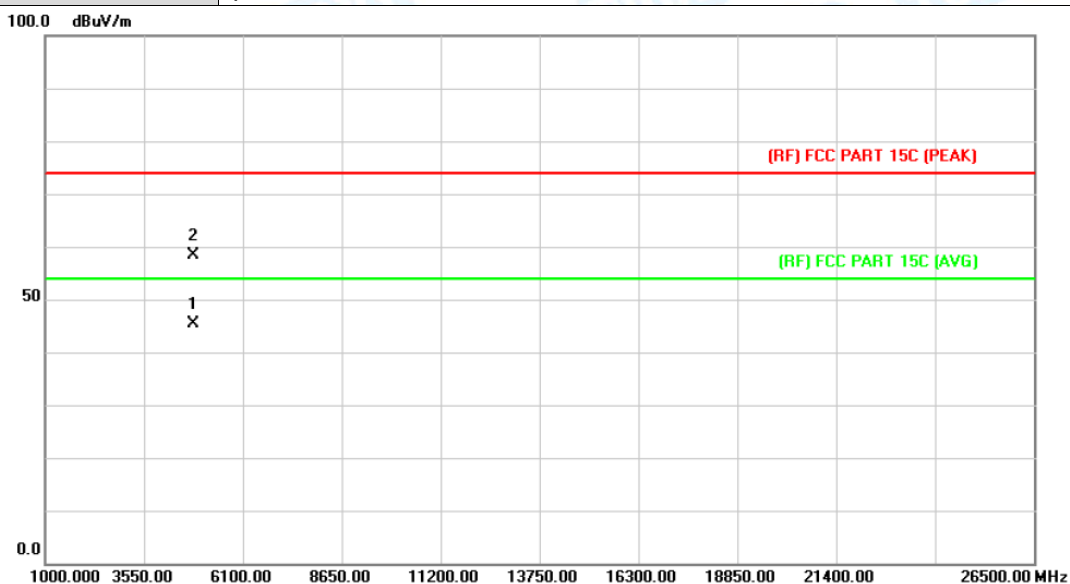


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		112.1305	48.82	-22.41	26.41	43.50	-17.09	QP
2		144.3348	52.34	-22.03	30.31	43.50	-13.19	QP
3		168.4138	53.02	-20.58	32.44	43.50	-11.06	QP
4	*	175.6516	52.81	-20.32	32.49	43.50	-11.01	QP
5		216.7828	51.35	-19.03	32.32	46.00	-13.68	QP
6		434.0651	45.03	-12.07	32.96	46.00	-13.04	QP

Emission Level= Read Level+ Correct Factor

Radiated Spurious Emission (Above 1 GHz)

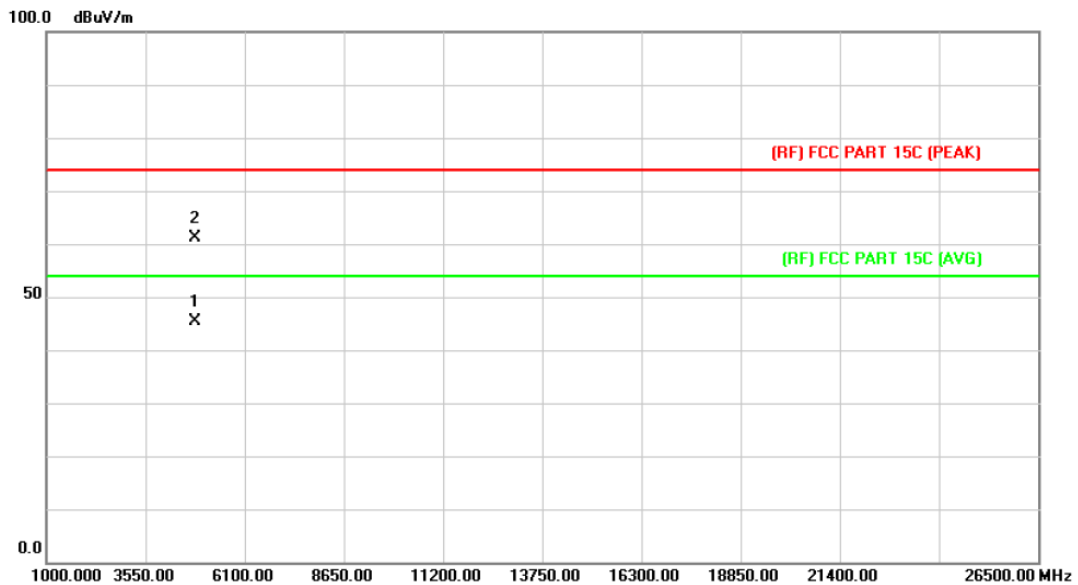
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 2408MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4815.135	30.92	14.50	45.42	54.00	-8.58	AVG
2		4815.254	43.91	14.50	58.41	74.00	-15.59	peak

Emission Level= Read Level+ Correct Factor

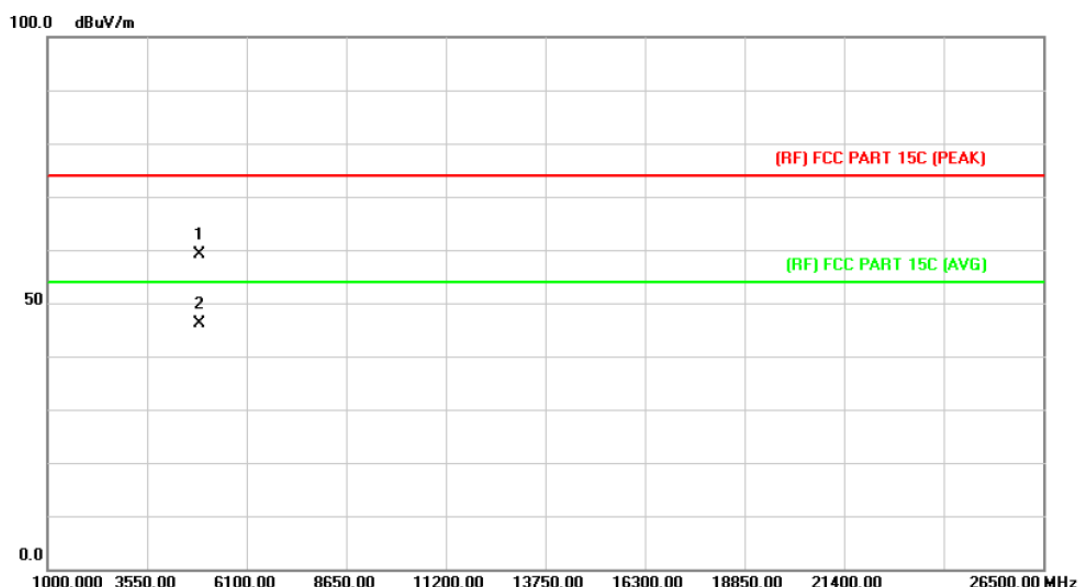
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 2408MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4815.125	30.85	14.50	45.35	54.00	-8.65	AVG
2		4815.154	46.75	14.50	61.25	74.00	-12.75	peak

Emission Level= Read Level+ Correct Factor

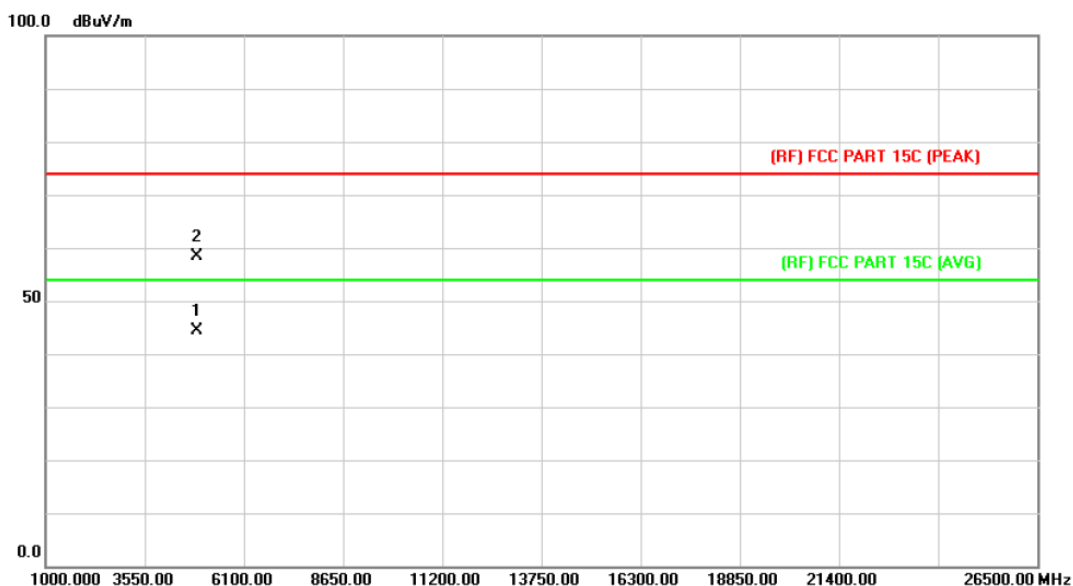
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 2441MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	4881.547	44.34	14.91	59.25	74.00	-14.75	peak
2 *	4882.012	31.33	14.91	46.24	54.00	-7.76	AVG

Emission Level= Read Level+ Correct Factor

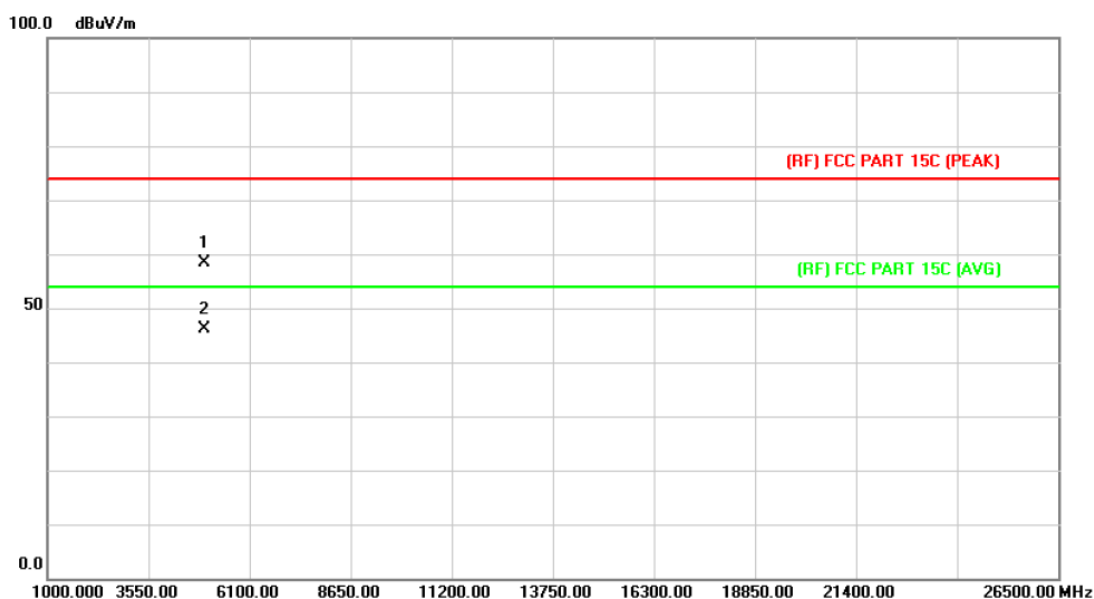
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 2441MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4882.012	29.44	14.91	44.35	54.00	-9.65	AVG
2		4882.124	43.55	14.91	58.46	74.00	-15.54	peak

Emission Level= Read Level+ Correct Factor

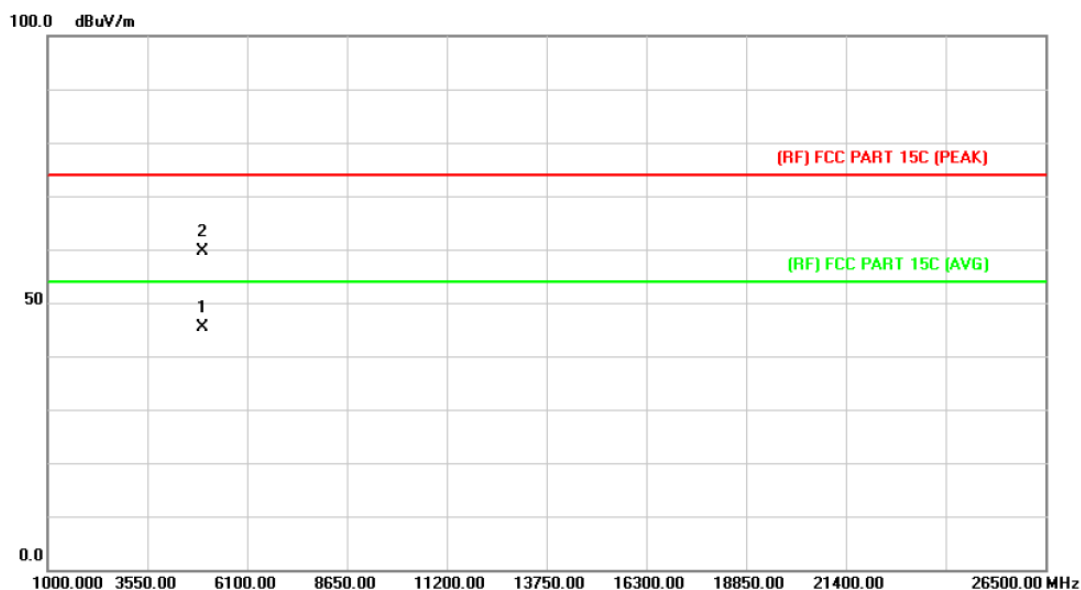
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Horizontal		
Test Mode:	TX 2475MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4948.674	43.14	15.33	58.47	74.00	-15.53	peak
2	*	4949.178	30.84	15.33	46.17	54.00	-7.83	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical		
Test Mode:	TX 2475MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



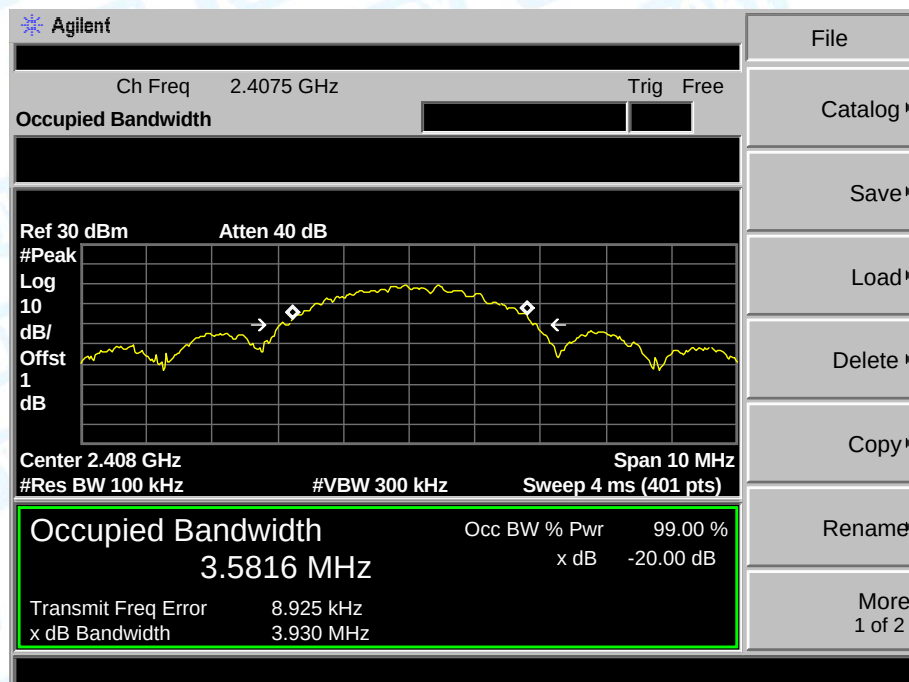
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4949.280	29.95	15.33	45.28	54.00	-8.72	AVG
2		4950.384	44.35	15.33	59.68	74.00	-14.32	peak

Emission Level= Read Level+ Correct Factor

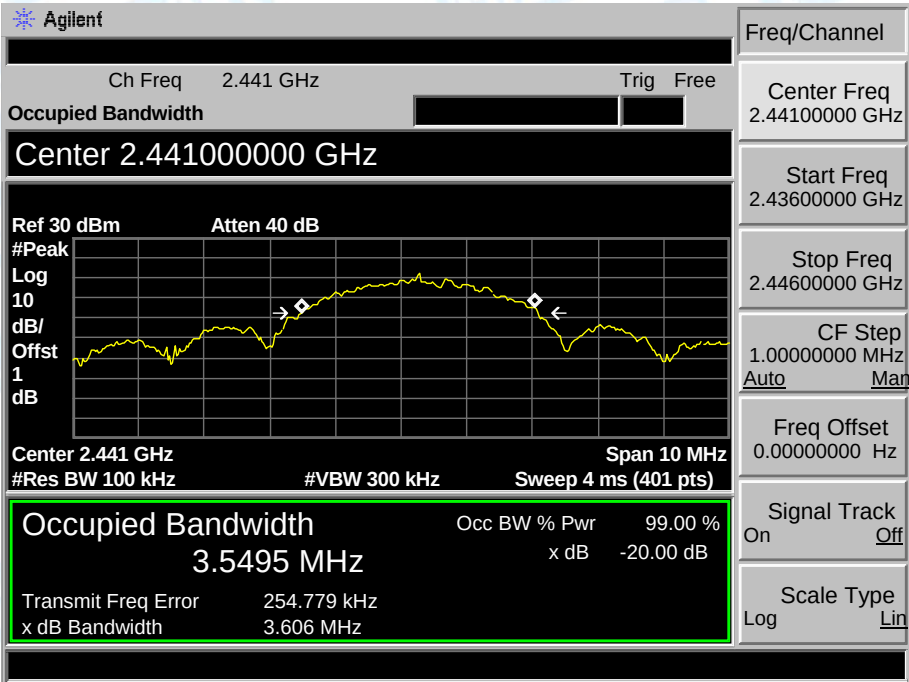
Attachment C--Bandwidth Test Data

Channel Frequency (MHz)	20dB Bandwidth (MHz)
2408	3.930
2441	3.606
2475	3.919

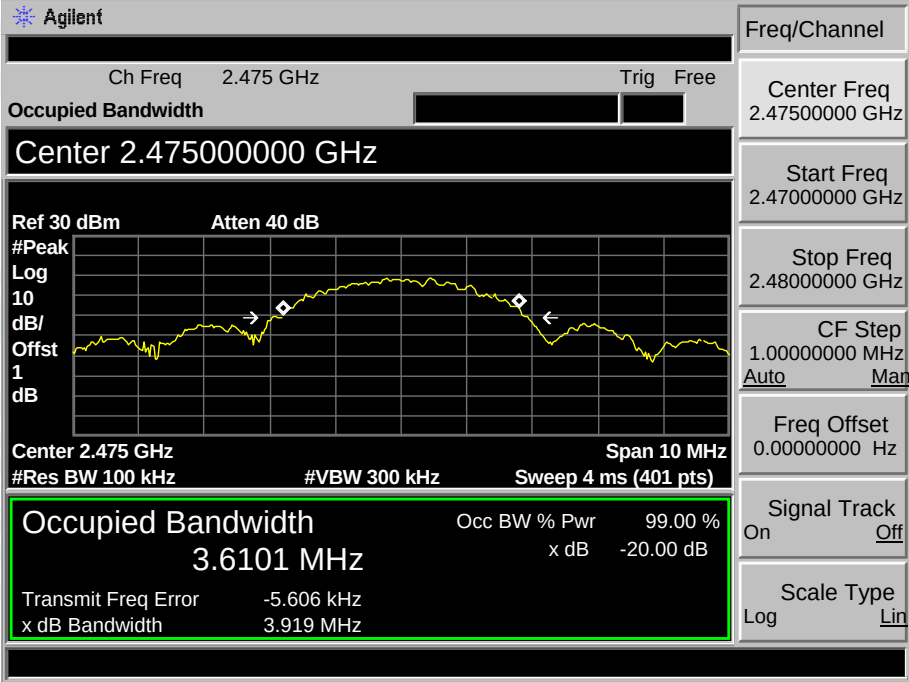
2408 MHz



2441 MHz



2475 MHz



-----END OF REPORT-----